



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/766,362 | 01/28/2004 | Stephen W. Metz | 132002 | 2899 |
| 23465 | 7590 | 06/17/2005 | EXAMINER | |
| JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740 | | | BRUCE, DAVID VERNON | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2882 | |

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-----------------------------|--|
| Office Action Summary | Application No. 10/766,362 | Applicant(s) METZ ET AL. | |
| | Examiner David V. Bruce | Art Unit 2882 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 27-30 is/are allowed.
- 6) ☒ Claim(s) 7-9, 12, 13, 16, 20, 21 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 14, 15, 17-19, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>20040128</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Stafford *et al.* US 5,531,550 A. Stafford *et al.* shows all of the features of the instant invention including an apparatus and computer program where a CAD algorithm is run against a CT scan (column 3 lines 25-68).

3. Claims 12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Paik *et al.* US 2002/0164061 A1. Paik *et al.* shows all of the features of the instant invention including an apparatus and computer program where a CAD algorithm is run against a CT scan (paragraphs [0008] and [0033])

4. Claims 7, 12, 13, 20, 21, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Gur *et al.* US 5,838,815 A. Gur *et al.* shows all of the features of the instant invention including a method, apparatus, or computer program where a CAD algorithm is run against a CT scan or a DRR from a CT scan (abstract, column 3 lines 24-40, column 8 lines 45-68, claim 9, claim 20, and claim 21).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2882

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8, 9, 16, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gur *et al.* US 5,838,815 A. Gur *et al.* shows all of the features of the instant invention as shown above, except that Gur *et al.* is silent on the displaying of the CAD results mapped onto, registered with, or simultaneously with the CT or DRR images. It is well known to have anomalies marked on the image of the item containing the anomaly. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to map, register, or simultaneously display the CAD results and the CT or DRR images motivated by the desire to distinctly point out the suspected anomalies to the radiologist.

Allowable Subject Matter

7. Claims 1-6 and 27-30 are allowed.

8. Claims 10, 11, 14, 15, 17-19, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: In the claims, with all the limitations as claimed, claims 1-6, 14, 22, and 23 show using a scout scan, claims 10, 11, 15, and 17-19 show setting a confidence level and using it to determine if another image is to be submitted to the CAD algorithm, and claims 27-30 use combined CT CAD and X-ray CAD. These features are neither shown nor fairly suggested in the prior art.

Art Unit: 2882

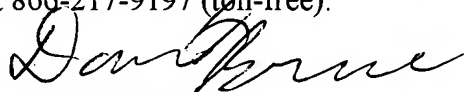
Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hsieh *et al.* US 6,574,304 B1 and Uppaluri *et al.* US 2003/0215120 A1 appear to be related to the present invention and contain common inventors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David V. Bruce whose telephone number is (571) 272-2487. The examiner can normally be reached on M - Th and alt Fri 8:00 - 4:30 subject to I-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David V Bruce
Primary Examiner
Art Unit 2882

dvb